# Ahsan Arozullah, MD, MPH

## *Islamic Ontology-Based Causes and Means of Healing*

**Abstract:** The purpose of this paper is to describe an ontological framework, based on traditional Islamic theology and metaphysics, which can serve as a foundation for expanding the understanding of causes and means of healing and serve as a bridge between the overlapping worlds of religion and medicine. Based on the writing of scholars like Shah Waliyullah of Delhi amongst others, the following Islamic ontology (Table 1) will be used as a foundation to describe a schema of causes and means of healing.

Table 1. Islamic Ontology: Realms of Existence

Realm of Existence Description

Lahoot (Creator) Absolute and Eternal Divine existence

Malakoot (Creation) World of spirits (arwaah) and other celestial beings

Mithal (Creation) World of non-physical forms and similitudes; Isthmus

Ajsaam (Creation) World of physical bodies (detectable)

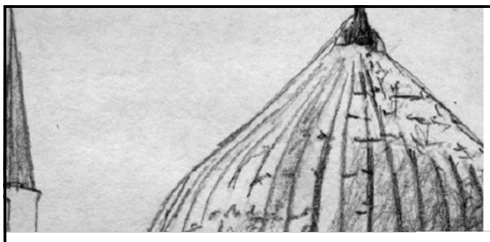
While modern medicine often attributes healing powers to medical or surgical therapeutics and to the healthcare provider, an Islamic theological perspective defines Allah (God) as the One who heals (Surah Al-Shu'ara, 26/80: 'And when I become sick, then He (Allah) heals me'). From an Islamic perspective in which Allah (God) is the healer, 'how' one attracts divine attention to one's illness is of primary concern. A Muslim understanding, based on Islamic ontology, is that healing and cure may come through a variety of means:

• Based on Lahoot, humans attract divine attention through unquantified means including tawakkul (absolute entrusting and reliance on God); willful acquiescence (patience at first moment); willful patience and forbearance (lower level of tawakkul); and sabr (patience and forbearance over time).

• Based on Lahoot, Malakoot and Ajsaam, humans seek divine attention for cure through worship-based rituals including supplication with petition (dua/ritual prayer) and directed charity (sadaqah).

• Based on Lahoot, Malakoot and Ajsaam, humans seek human assistance for cure including medications; surgery; counseling; prescribed meditation; prescribed incantations; and prescribed amulets.

This paper presentation will utilize case examples such as fever of 'unknown' origin to illustrate how Muslim and medical ontological frameworks influence and provide complementary views on healing. Medically-based treatment paradigms applied for fever of 'unknown' origin are often focused on empirical treatment targeted at likely biological sources of fever in the absence of a proven, tangible biological etiology. Muslim ontology may facilitate expanding the treatment options for fever of 'unknown' origin to include seeking healing from God directly regardless of the certainty of the biological origin. A Muslim approach would include attracting divine attention through unquantified means (e.g. tawakkul, sabr), seeking divine attention through worship-based rituals, and seeking human assistance. Healthcare providers may view patients relying on non-physical means as passive or fatalistic. However, understanding alternate ontologies may broaden this view and facilitate enhanced communications.



## The Role of Muslim Ontology in Defining a Schema of Causes and Means of Healing

Ahsan Arozullah, Aasim Padela, M. Volkan Stodolsky,
M. Amin Kholwadia
April 16, 2016
Multidisciplinary Conference on Islamic Theology, Law, and Biomedicine

DARUL QASIM

## Disclosure and Disclaimer

- Presenter is an employee of Astellas Pharma, Inc.
- Views and opinions expressed in this presentation are those of the presenter and should not be considered as a position of Astellas Pharma.
- This presentation does not involve Astellas Pharma in any manner.

DARUL QASIM
2

## Introduction

- American Muslim views on healing have been studied through community-based participatory research (Padela et al., 2012)
- Participants shared a God-centric view of healing accessed through
  - Supplication and Qurʾān recitation (direct)
  - Human agents (indirect)

DARUL QASIM
3

## Introduction

- Expanding the bio-psycho-social model of patient care to a bio-psycho-social-*spiritual* model (Sulmasy, 2002)
- Holistic care requires understanding that persons are beings-in-relationship with questions of transcendence
- Ontology
  - Branch of metaphysics concerned with the nature and relations of being
  - Bridge to facilitate understanding causes and means of healing

4

## Purpose

- Describe an ontological schema derived from Sunni Islamic theological and metaphysical understandings
- Utilize an ontological schema to explain causes and means of healing
- Demonstrate the usefulness of an ontological schema-based representation of means of healing through a case example

5

## Acknowledgements


- This paper emerges from a multidisciplinary working group project convened by II&M and Darul Qasim entitled
  - "Scientific Discoveries and Theological Realities: Exploring the Intersection of Islam and the Human Sciences"
  - Funded by John Templeton Foundation (PI – A Padela; ID# 39623)
- Working group members
  - Shaykh Jihad Hashim-Brown, Shaykh Omar Qureshi and Shaykh Taha Abdul Basser
  - Drs. Faisal Qazi and Katherine Klima
- Earlier version presented at the 2015 Conference on Medicine and Religion in Cambridge, Massachusetts


6

## Agenda

- Ontological Schema
- Causes and Means of Healing
- Case Example
  - Patient with chronic lymphocytic leukemia

7

## Agenda

- Ontological Schema
- Causes and Means of Healing
- Case Example
  - Patient with chronic lymphocytic leukemia

8

## Ontological Schema

- Numerous formulations and overlapping terminologies used to describe Islamic ontological frameworks
- An ontological schema derived from the works of
  - Ibn ʿArabī (1165-1240) and Shāh Walī Allāh al-Dahlawī (1703-1762)
  - Adopted by Deobandi scholars
- Presented from perspective of human being living life in this worldly existence

9

## Ontological Schema

| Realm of Existence | Description |
|---|---|
| *Lahūt* (Creator) | Absolute and Eternal Divine existence |
| *Malakūt* (Creation) | World of spirits (*arwāḥ*) and other celestial beings |
| *Mithāl* (Creation) | World of non-physical forms and similitudes; accessible in dreams |
| *Ajsām* (Creation) | World of corporeal bodies; accessible |


10

## Agenda

- Ontological Schema
- Causes and Means of Healing
- Case Example
  - Patient with chronic lymphocytic leukemia

11

## Source of Healing

Theological perspective

Allah is the One who heals:

*'And when I (Abraham) become sick, then He (Allah) heals me'* (Sūrat al-Shuʿarāʾ, 26/80)

Patient perspective

Primary concern is 'how' does one attract divine attention to heal one's illness

Ontological perspective

Healing created by Absolute and Eternal Divine existence (*Lahūt*) manifests in the *Ajsām*.

12

## Potential Means of Healing

| Potential Means of Healing | Ontology |
|---|---|
| Completely rely on and trust Allah, without panicking when there are no conventional means available (*tawakkul*) | *Lahūt* |
| Patience (*ṣabr*) | *Lahūt* |
| Supplication to Allah for cure (*duʿāʾ*) | *Malakūt* |
| Charity (*ṣadaqah*) | *Malakūt* |
| Visitation by others | *Malakūt* |
| Preventive action based on dreams | *Mithāl* |
| Medications, surgery | *Ajsām* |
| Incantations, amulets from traditional healers | *Malakūt* |

13

## Means of Healing - Prophets as Role Models

- Ayyūb (Job)
  - *Tawakkul*
  - Perfect trust in Allah and reliance on Him alone
- Jesus - the perfect healer
  - Given leave by Allah to heal without conventional means of healing



14

## Agenda

- Ontological Framework
- Causes and Means of Healing
- Case Example
  - Patient with chronic lymphocytic leukemia

15

## Chronic Leukocytic Leukemia

- An indolent (slow-growing) cancer in which too many immature lymphocytes (white blood cells) are found mostly in the blood and bone marrow
- What means of healing could one use based on ontological schema?
  - *Ajsām*
  - *Mithāl*
  - *Malakūt*
  - *Lahūt*

16

## Means of Healing - Prophets as Role Models

Prophet Muhammad

- *Tawakkul*
- Advised patients to be patient
- Seeking Divine assistance/attention for cure
  - Duʿāʾ(supplication); *Ṣadaqah* (charity)
- Seeking human assistance for cure
  - Incantations; Amulets (Traditional healers)
  - Counseling; Meditation
  - Medications; Surgery



17

## Discussion

- Ontological frameworks support understandings of causes and means of healing
- Patient and provider understandings of alternate ontological frameworks will likely facilitate enhanced communications regarding means of healing
- Distinction between relying versus seeking means of healing

18

Conclusion

Any Questions?



# Back-up Slides





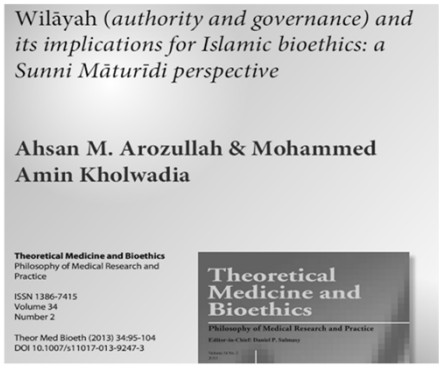


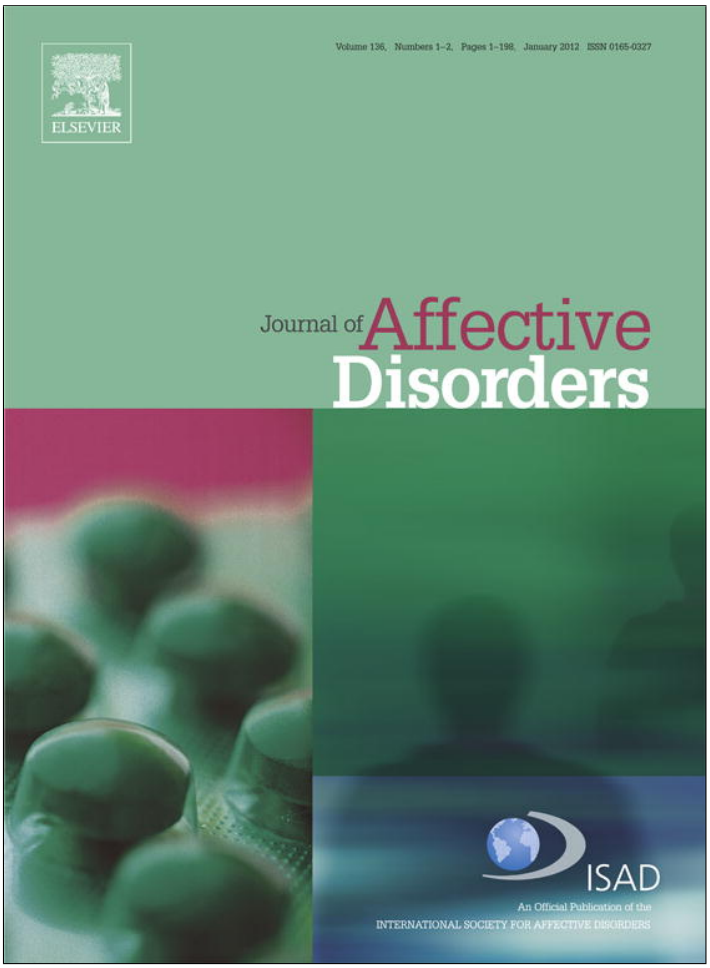
**Table 1** Classification system for *ḥukm taklīfī**

| Category | Supporting evidence | Level of obligation |
|---|---|---|
| *Farḍ* | Conclusive textual and contextual evidence from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is rewarded in the hereafter | 1. To perform the action<br>2. To believe that the action is an obligation |
| *Ḥarām* | Conclusive textual and contextual evidence from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is punishable in the hereafter | 1. To avoid the action<br>2. To believe that the action is forbidden |
| *Wājib* | Conclusive textual or contextual evidence, but not both, from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is rewarded in the hereafter | 1. To perform action<br>2. Not required to believe that the action is an obligation |
| *Makrūh Taḥrīmi* | Conclusive textual or contextual evidence, but not both, from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is punishable in the hereafter | 1. To avoid action<br>2. Not required to believe that the action is forbidden |
| *Mustaḥab* | Textual evidence from the *Sunnah* suggests that the action is rewarded | 1. Encouraged to perform action<br>2. Not required to believe that the action is an obligation |
| *Makrūh Tanzīhi* | Textual evidence from the *Sunnah* suggests that the action is reprehensible | 1. Discouraged to perform action<br>2. Not required to believe that the action is forbidden |
| *Mubāh* | Inconclusive evidence that the action is rewarded or punished | 1. No obligation to perform or avoid action |

* This classification system is based on a Ḥanafi Māturīdi construct

# Rania Awaad, MD

# *A Millennium before DSM-5: OCD in al-Balkhi' s 9th century Sustenance of the Body and Soul*



Journal of Affective Disorders 180 (2015) 185–189

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Preliminary communication

# Obsessional Disorders in al-Balkhi's 9th century treatise: *Sustenance of the Body and Soul*

Rania Awaad *, Sara Ali

*Stanford University School of Medicine, United States*

ARTICLE INFO

*Article history:*
Received 11 December 2014
Received in revised form
28 February 2015
Accepted 2 March 2015
Available online 19 March 2015

*Keywords:*
History of OCD
Al-Balkhi
History of psychiatry
Islamic Golden Era

ABSTRACT

Some argue that the earliest case of Obsessive–Compulsive Disorder (OCD) was reported by Robert Burton in his compendium *The Anatomy of Melancholy* (1621) and that only in the 19th century did modern concepts of OCD evolve, differentiating it from other types of mental illness. In this paper, we aim to reveal an even earlier presentation of the malady we now call OCD based on the 9th century work, *Sustenance of the Body and Soul*, written by Abu Zayd al-Balkhi during the Islamic Golden Era. Discovery of this manuscript reveals that Abu Zayd al-Balkhi should be credited with differentiating OCD from other forms of mental illnesses nearly a millennium earlier than is currently claimed by anthologies documenting the history of mental illness. Particular attention is paid to al-Balkhi's classifications, symptom descriptions, predisposing factors, and the treatment modalities for obsessional disorders. Analysis of this manuscript in light of the DSM-5 and modern scientific discoveries reveals transcultural diagnostic consistency of OCD across many centuries. Theoretical and clinical implications of these findings are also discussed.



## 1. Introduction

The desire to understand abnormal behavior, psychopathology, is perhaps as old as man's earliest written records (Plante, 2013). Therefore, it should not come as a surprise to find descriptions of psychological suffering in the writings of the ancients. Since perceptions of mental illnesses are greatly shaped by social context (Okasha et al., 1994), psychological symptoms in the past were likely clustered differently than contemporary classifications (Jackson, 1972). On rare occasions, symptomatology groupings that resemble modern understandings of certain mental illnesses can be found. Obsessive–Compulsive Disorder is arguably one such case. Though most historians date the origin of OCD to the 1850s (Berrios, 1989; Goodman, 2014), Robert Burton's compendium *The Anatomy of Melancholy* (1620) is credited with the earliest known description of OCD (Berrios, 1996; Goodman, 2014). Contrary to these claims, an Arabic manuscript entitled *Sustenance of the Body and Soul* indicates that the 9th century's scholar Abu Zayd al-Balkhi should be credited with differentiating OCD from other forms of mental illnesses nearly a millennium earlier.

### 1.1. Mental illness in the Greco-Roman tradition

Mental illnesses were featured in the medical writings of early Greek and Roman physicians including Hippocrates (5th century BC), Mnesitheus (4th century BC), and Galen (2nd century AD). They were also described by philosophers such as Plato (5th century BC) and Aristotle (4th century BC) (Simon, 1978). These early physicians and philosophers generally attributed mental illness to the imbalance in bodily humors and temperaments (Akiskal and Akiskal, 2007; Simon, 1978).

Despite the mention of mental illnesses in Graeco-Roman works, the descriptions of these illnesses are often scattered and are not the center of attention. Even the Hippocratic corpus, which contains a brilliant collection of clinical pearls, is not arranged systematically, making it difficult to locate the descriptions of mental illnesses (Simon, 1978).

### 1.2. The state of medicine and mental illness in the Islamic Golden Era

The period between the 9th and 12th centuries is often referred to as "The Islamic Golden Era" (Ahmed and Amer, 2012; Falagas et al., 2006; Friendly, 2008) due to its scientific productivity. The Abbasid emperors (Caliphs) who ruled during this era paid special attention to fostering the advancement of science and medicine (Graziani, 1980).

* Correspondence to: Department of Psychiatry and Behavioral Sciences, 401 Quarry Rd. Stanford, CA 94305, United States.
*E-mail address:* rawaad@stanford.edu (R. Awaad).

http://dx.doi.org/10.1016/j.jad.2015.03.003
0165-0327/

Abbasid rulers built institutions, such as the House of Wisdom, to encourage the translation of ancient medical manuscripts, including from Greek and Syriac, into Arabic (Majeed, 2005). Once translated into Arabic, the medical science of the ancients was advanced by scholars of the Muslim world who contributed their clinical observations, experimentations, and innovative treatments (Gorini, 2007; Graziani, 1980; Majeed, 2005; Tchamouroff, 2006). Later, medical manuscripts from the Islamic Golden Era were translated from Arabic into Latin and likely reached Europe in this manner (Haque, 2004; Ḥusayn, 1970; Shanks and al-Kalai, 1984).

Religious, socio-economic and political factors all contributed to the advancement of medicine in the Islamic Golden Era. Religious teachings, for example, played an essential role in instructing scholars and lay people about the importance of medical knowledge due to the Islamic injunction to seek out treatments for every ailment (Shanks and al-Kalai, 1984). Islamic teachings also strongly emphasized bodily hygiene, (Graziani, 1980) which further tethered religious devotion to medical knowledge. This newly developed quest for medical knowledge led physicians to enjoy the prestige and support of Caliphs, who commissioned competent physicians to both author medical manuscripts as well as to plan and construct hospitals and other institutions of well being (Graziani, 1980).

The Islamic medical heritage can be described as holistic, paying attention to the body and soul (Deuraseh, 2006). Manuscripts discussing mental health in the Islamic Golden Age can be categorized into four main genres: psycho-philosophical, psycho-spiritual, psycho-medicinal, and psycho-preventative. All four genres of writings about mental well being from the Islamic Golden Era were composed by encyclopedic scholars who mastered dozens of sciences in their lifetimes. The contributions of these scholars to the field of medicine during the Islamic Golden Era were vast and impressive.

## 2. The topic of obsessions in the Islamic Golden Era

A closer look at the topic of obsessions as discussed in the works of scholars during the Islamic Golden Era shows that obsessions were hardly mentioned as a mental disorder that had its own unique symptoms, causes and treatments. An illustration of these varying descriptions of obsessions can be found in the famous clinical encyclopedia, *al-Hawi*, of al-Razi (850–950 CE). The terms "obsessions" (*weswas*) and "annoying thoughts" (*afkar radi'ah*) frequently appear as symptoms of melancholia in his manuscript. However, in other sections of his manuscript, he differentiates between obsessions and melancholia on the basis of the humoral theory. He further asserts that obsessions differ from melancholia on the grounds that the former is unique in its mixture of fears and distorted thoughts.

To our knowledge, the prevailing medical works of the Islamic Golden Era did not contain a sustained description of obsessions as a mental disorder. For that reason, we speculate that sustained descriptions of obsessions as a mental disorder likewise did not exist in the Greek and Roman medical writings from which Muslim scholars drew so heavily. Perhaps this omission motivated Abu Zayd al-Balkhi to dedicate an entire chapter to obsessions as a mental illness in his text "Sustenance of the Body and Soul".

### 2.1. Al-Balkhi and his book "Sustenance of the Body and Soul"

Al-Balkhi was a Muslim encyclopedic scholar (Al-Balkhi et al., 2003) who lived in the ninth and tenth centuries (849–934 CE) at the height of the Islamic Golden Era. He was from Khorasan, a province in the region between modern-day India and Iraq. During al-Balkhi's lifetime, Khorasan was part of the Islamic empire ruled by the Abbasid Caliphate.

Al-Balkhi was not a practicing physician (Al-Balkhi et al., 2005). He excelled in theoretical medicine, as was common among scholars of his era. He authored a unique medical treatise entitled "Sustenance of the Body and Soul" (*Masalih Al Abdan wa al-Anfus*). This treatise is composed of two sections. The first section, *Masalih al-Abdan*, is devoted to physical health maintenance and disease prevention, while the second section, *Masalih al-Anfus*, focused on mental health. The mental health section is further divided into eight chapters. The treatise is written in non-technical Arabic vocabulary to facilitate its usage by lay people.

In the introduction to the mental health section, al-Balkhi stated that topics related to mental health were haphazardly spread out in books of medicine and philosophy (Al-Balkhi et al., 2003, 2005). This made it difficult for anyone, especially a layperson, interested in issues relating to the psyche to locate needed information. Al-Balkhi reported that he purposefully combined the discussion of physical health and mental health in one volume. He criticized physicians of his time for limiting themselves to treating the body while neglecting the psychological needs of their patients. Furthermore, he believed his book was unique and asserted that no one before him wrote about psychological matters in as clear, simplified, and systematic of a manner.

Al-Balkhi classified mental disorders in four main categories: anger (*al-ghadab*); sadness and depression (*al-Jaza'*); fears and phobias (*al-faza'*); and, obsessional disorders (*wasawes al-sadr*). His classification was based on the symptomatology of the disorders. An entire chapter was devoted to the discussion of obsessional disorders. Al-Balkhi not only described obsessional disorders, but also discussed their classifications, predisposing factors, and underlying causes and offered suggestions for treatment. Our analysis of al-Balkhi's work is based on his original Arabic manuscript found in the book bearing the name, *Masālih al-Abdān Wa-al-Anfus,* which was reproduced by Misri and Hayyat (Bremmer, 2002) and published by "The Institute of Arabic Manuscripts" (*Ma'had al-Makhtūtāt al-'Arabīyah*)/ World Health Organization. The same original Arabic manuscript was also found in the reproduction by Sezgin (Balkhi et al., 1988) by the same title.

### 2.2. Diagnostic features of obsessions according to al-Balkhi

Al-Balkhi described obsessions as a psychological disorder of unknown etiology likely caused by an excess of black bile as dictated by the classical four humors theory[1] that was widely accepted during his time (Al-Balkhi et al., 2005). He believed that afflicted individuals suffered from "annoying thoughts" (*afkar rade'ah*) that were not real (Al-Balkhi et al., 2005). He explained that an individual who suffered from an obsessional disorder will continue to recall the fearful thoughts and expect them to happen in the near future. These thoughts were intrusive and prevented an individual from enjoying life and performing daily activities. They affected the degree of the individual's concentration and interfered with the ability to carry out routine tasks. An individual may then try to resist these thoughts by focusing on other things, such as listening to the conversations of others or performing daily tasks. However, an individual afflicted with obsessions will soon be distracted once again and become occupied by the intrusive thoughts.

[1] The Humoral Theory stated that the body was composed of four main fluids; black bile, yellow bile, phlegm and blood. A certain balance existed among these four humors. An excess or deficiency in any of the four humors affected the body's temperament, health and propensity for disease. Each humor had two main characteristic qualities. Black bile was believed to be dry and cold, while yellow bile was dry and hot. Phlegm was wet and cold, while blood was wet and hot.

**Table 1**
Comparison of OCD Criteria between DSM-5 and al-Balkhi's Manuscript:.

| DSM-5 | Al-Balkhi |
|---|---|
| Diagnostic Features | |
| Obsessions are: | |
| Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress. | Annoying thoughts that are not real. These intrusive thoughts prevent enjoying life, and performing daily activities. They affect concentration and interfere with ability to carry out different tasks. Afflicted individuals become preoccupied with fearful thoughts and expect these events to happen at any time. |
| The individual attempts to ignore or suppress such thoughts, urges, or images. | The individual tries to resist the thoughts by focusing on other things, such as listening to the conversations of others or performing daily tasks. Concentration is soon lost and the individual becomes preoccupied with annoying thoughts. |
| Compulsions are repetitive behaviors or mental acts, that the individual feels driven to perform in response to an obsession. | Physical symptoms associated with obsessions are not similar to those seen in physical illness. They are less severe in terms of their effect on the body, but are annoying to the afflicted individual and cause distress. |
| Specifiers | |
| Many individuals with Obsessive–Compulsive disorder (OCD) have dysfunctional beliefs. These beliefs can include an inflated sense of responsibility and the tendency to overestimate threat; perfectionism and intolerance of uncertainty; and, over-importance of thoughts. | People with obsessive disorder are generally pessimistic. They usually expect bad things to happen to them.<br>When they are given choices, they are likely to choose the more complicated ones.<br>They are continuously hard on themselves and tend to select difficult alternatives. |

The description of obsessional disorders found in al-Balkhi's manuscript echoes the description of Obsessive–Compulsive Disorder (OCD) found in modern diagnostic manuals of psychiatry such as the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (American Psychiatric Association., 2013). An illustration of the comparison between the criteria for OCD in DSM-5 and al-Balkhi's manuscript can be found in Table 1.

For example, the modern understanding of OCD parallels al-Balkhi's claims that obsessions are intrusive and annoying and that the afflicted individual often attempts to resist these thoughts. Al-Balkhi, however, did not discuss compulsive behaviors in detail, though he referred to them repeatedly in his text as annoying physical symptoms that accompany obsessional disorders. Another similarity between al-Balkhi's description of obsessional disorder and the modern understanding of OCD is his claim that an individual afflicted by obsessions will busy himself with intrusive thoughts; this matches the time consumption criteria of OCD. Furthermore, these obsessions may be so severe that an afflicted individual cannot enjoy any activity or fully complete any tasks. An illustration of the comparison between the criteria for OCD in DSM-5 and al-Balkhi's manuscript can be found in Table 1.

### 2.3. Al-Balkhi's classifications of obsessional disorders

Al-Balkhi proposed two classifications of obsessions: time-dependent and symptom-dependent. The first classification depended on the time of onset of obsessions and was further subcategorized into two types; one which afflicted an individual from birth while the other appeared later in life. Al-Balkhi claimed that an individual's inherited temperament, which was predetermined by the degree of balance between the four humors, was the cause for obsessional disorders that occurred from birth. This inherited type had a chronic course with waxing and waning symptoms, and its effect could be lessened if the afflicted individual kept himself busy. Interestingly, al-Balkhi's description of obsessional disorders caused by an individual's inherited temperament is akin to the DSM-5 description of Obsessive–Compulsive Personality Disorder. As for the second subcategory of time-dependent obsessional disorders, al-Balkhi asserted that these obsessions attacked an individual in old age and its symptoms were more aggressive than the inherited form. This form was also more difficult to manage and caused marked distress to the afflicted individual.

Al-Balkhi's second method of classifying obsessional disorders was symptom-based. Al-Balkhi believed that obsessional thoughts were of two types; desired and fearful. Desired obsessional thoughts were those that centered around a beloved someone or something. These thoughts led to feelings of being overwhelmed to the extent that they controlled an individual's mind and prevented the engagement in daily activities. The second type of obsessional thoughts was fearful thoughts. Unlike desired thoughts, these thoughts were painful and dreadful. They caused the afflicted individual to be continuously worried and pessimistic.

### 2.4. Treatments for obsessional disorders according to Al-Balkhi

Al-Balkhi's discussion of how to treat obsessional disorders focused on two areas: barriers to seeking treatment and therapeutic interventions for managing obsessions.

Al-Balkhi discussed three major barriers to seeking treatment for obsessional disorders: 1) cultural beliefs about obsessions, 2) attitudes towards seeking treatment, 3) loss of hope in finding a treatment.

When addressing the first barrier, al-Balkhi commented on widespread religious and cultural beliefs of his era about the causes of obsessions. Al-Balkhi stated that, in his opinion, obsessions could be caused by the devil or as a result of black bile. He clarified, however, that regardless of the cause, those afflicted should resist these thoughts, counter them with positive thoughts and seek out mind based therapy.

As for the other barriers, al-Balkhi commented that people suffering from mental disorders might be more reluctant to seek treatment than they would be for physical ailments. He strongly asserted that mental illnesses, like physical illnesses, need to be attended to and treated with appropriate therapies. Al-Balkhi further claimed that the accepted belief of his time, that obsessions are difficult to treat, was a misconception. He reminded his readers that God created a treatment for every illness and that an afflicted individual should not lose hope. He further explained that the aim of any treatment is to either cure the disease completely or to at least prevent its progression.

It is clear from al-Balkhi's manuscript that he was an expert observer (Al-Balkhi et al., 2003, 2005)) who noticed that successful treatment of obsessions could not be achieved unless the individual first believed in the importance and the effectiveness of therapy. He appears to have understood the importance of addressing the cultural and religious beliefs of patients. He wisely used those beliefs to convince patients to seek therapy. By explaining obsessions both on the basis of religious and cultural beliefs as well as on the Humoral Theory, he cleverly bridged between this prevailing 9th century scientific theory of wellness and Islamic religious beliefs.

In order to introduce therapeutic interventions, al-Balkhi first provided a framework for treating obsessional disorders. He explained that obsessions could be managed by two approaches; therapy external to the self (external therapy) and therapy from within the self (internal therapy). A practical exercise using external therapy would be to avoid loneliness. He clarified that loneliness could make an individual more vulnerable to his obsessional thoughts. Rather, afflicted individuals should keep themselves busy with daily tasks or beneficial activities. Furthermore, the loss of interest in things they once enjoyed could be managed by refreshing their senses with delicious food, drinks, and music.

Al-Balkhi also advocated for the use of an internal therapy that depended on fighting obsessional thoughts with positive ones. Using internal therapy, one who suffered from fearful thoughts would remind himself that these thoughts were not real. Al-Balkhi further recommended that the afflicted individual discusses these fearful obsessional thoughts with close friends to test the reality of their fears. In this way, al-Balkhi hinted at the delusional aspect of some obsessional thoughts. It can be said that al-Balkhi′s distinction of delusional qualities in some obsessional thoughts is similar to the category "OCD with absent or poor insight" found in the DSM-5. In this subset of OCD an individual cannot differentiate between real and unreal thoughts and needs someone to help him gain insight. The modern term for this type of internal therapy first proposed by al-Balkhi is "Insight Psychotherapy" (Al-Balkhi et al., 2005). Interestingly, al-Balkhi′s focus on convincing those with obsessional disorder that they have maladaptive beliefs is one of the core goals of modern cognitive behavioral therapy (Cefalu, 2010).

These early discussions on what we today call cognitive behavioral therapy (Al-Balkhi et al., 2003) as initiated by al-Balkhi and other physicians of the Islamic Golden Era was unique to this era and was not popular in Greek medicine. Although Greek physicians practiced a kind of informal talk therapy in their interaction with patients, the concept of the healing power in words and dialog was not well established until the Islamic Golden Era (Simon, 1978).

### 2.5. Al-Balkhi and his contemporaries

It is difficult to clearly establish the influence of al-Balkhi′s theories of mental illness on his contemporaries and on the scholars who followed. Many medical manuscripts, including those on mental health, were lost; only their titles have reached us (Shanks and al-Kalai, 1984). Furthermore, countless manuscripts are postulated to exist in museums worldwide without having been published (Nagamia, 2010). What remains available for close examination are the most famous of the medical treatises written by al-Balkhi′s contemporaries or within the three centuries that followed: al-Razi′s "Al-Hawi", Ibn Sina′s "Kitāb al-ḳanūn fī al-ṭibb" (Canon of Medicine), at-Tabari′s "The Paradise of Wisdom", and Najab Uddin Al-Samarqandi′s "The Symptoms and Causes". In examining these texts, one finds that the style of writing, classifying, and conceptualizing illnesses and their treatments clearly differed from that of al-Balkhi.

Certainly, none of these texts describe obsessional disorders in as much depth or with as much clarity as al-Balkhi′s manuscript; *Sustenance of the Body and Soul*. The topic of obsessions in the texts of al-Razi, Ibn Sina, at-Tabri and Najab Uddin was discussed as either a symptom of melancholy or as part of love sickness disorder. In sifting through the theories on the origins of obsession by al-Balkhi′s contemporaries and successors, it seems the only tie between their theories and al-Balkhi′s was the central role black bile which was believed to have played in causing obsessions. Likewise, treatments recommended for obsessions were largely different. Al-Balkhi was a proponent of cognitive therapy (Al-Balkhi et al., 2003), while Ibn Sina, Najab Uddin and other physicians who understood obsessions to be a symptom of melancholy, focused on medications, ointments, and bloodletting.

It seems likely, then, that if al-Balkhi′s works reached his contemporaries or successors, his theories did not resonate strongly with them. We speculate that contributing reasons for this might have been that al-Balkhi was not famous in the field of medicine (Al-Balkhi et al., 2005). Rather, he earned his fame in the field of geography (Al-Balkhi et al., 2003, 2005. This may explain why his only medical manuscript was not widely copied and circulated. Famous physicians who were contemporaries of al-Balkhi such as al-Razi or those who came after him such as Najab Uddin were more interested in commenting and expounding on popular manuscripts of famous practicing physicians (Al-Samarqandi, 1222; Husayn and al-'Uqbi, 1977). In an era when manuscripts could only gain widespread use if scholars invested the time in copying the works of their predecessors, it is likely that al-Balkhi′s medical treatise did not enjoy this boon and thus his theories, despite their revolutionary approach, did not lead to major breakthroughs in the medical practice of the Islamic Golden Era. Nearly a millennium later, however, al-Balkhi′s innovative work can be clearly recognized as groundbreaking for its time.

### 2.6. Theoretical and clinical implications of Al-Balkhi′s treatise

The broad conceptual coherence of a disorder, carrying obsession-like symptoms from the medieval period until modern times is a significant testimony to the concept of the objective reality of psychiatric disorders. The fact that obsessional disorders were described in an Arabic manuscript from the Islamic Golden Era and resonate with aspects of the modern diagnosis of OCD gives transcultural significance to this Western psychiatric diagnostic category.

Moreover, al-Balkhi′s manuscript has clinical implications for mental health professionals working with Muslim clients. Much of his culturally and religiously sensitive advice is still applicable. In fact, many modern mental health Arabic forums as well as articles in academic journals published in the Arabic language quote al-Balkhi′s work (Taha, 2006). As for al-Balkhi′s recommendations on cognitive therapy, they should be further tested and validated to investigate their scientific benefit.

## 3. Limitations

In conducting an historical analysis of the concept of obsessions, many limitations exist. For example, medical manuscripts from the medieval period are difficult to access. This limited our ability to compare and contrast al-Balkhi′s work with those of his contemporaries. When manuscripts were accessible, discussions of the concept of obsessions were usually sparse and scattered, potentially leading to inadvertent omissions.

Furthermore, looking into the past through the lens of the present involves the risk of presentism –imposing current concepts on the past (Heinrichs, 2003). This risk arises because studying the past involves investigating the present; as is understood by the epistemological root of the word presentism (Thornton, 1969). Thus, the authors may be guilty of presentism in examining al-Balkhi′s descriptions of obsessions through the lens of modern day understanding of OCD.

A limitation in translating a text from antiquity is, as Bremmer (2002) asserts, that modern usage of some words cannot be directly inferred from their original derivation. The rich semantics of ancient terminology is often disguised in the current usage of the language it is quoted in (Fraguas and Breathnach, 2009). Thus,

the historical context in which the text originated must be considered when interpreting ancient texts (Fraguas and Breathnach, 2009).

## 4. Conclusion

Al-Balkhi′s discussion of obsessions, from the peak of the Islamic Golden Era, is rather similar to modern day interpretations of obsessions and curiously enough, more so than those of al-Balkhi′s contemporaries. There is much to ponder in the work of al-Balkhi, including the recognition of how, in many ways, our current views of obsessions differ little from this medical forbearer. It is possible that it has taken nearly a millennia for the precocious genius of Abu Zayd al-Balkhi to be recognized and appreciated.

**Role of funding source**

Research reported in this publication was supported in part by the National Institute of Mental Health of the National Institutes of Health under Award number 5T32MH019938-20.The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

This publication was also supported in part by an APA/SAMHSA Minority Fellowship Award from the American Psychiatric Association.

**Conflict of interest**

On behalf of all authors, the corresponding author states that there is no conflict of interest.

**Acknowledgments**

We wish to thank Dr. Lorrin Koran, Professor Emeritus of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, for his advice and insight in reading this article. We would also like to thank Dr. Natalie Rasgon, Professor of Professor of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, for her mentorship throughout this project.

## References

Ahmed, S., Amer, M.M., 2012. Counseling Muslims: Handbook of Mental Health Issues and Interventions. Routledge, New York.

Akiskal, H.S., Akiskal, K.K., 2007. In search of Aristotle: temperament, human nature, melancholia, creativity and eminence. J. Affect. Disord. 100, 1–6.

Al-Balkhi, A.Z., Badri, M., 'Ashwi, M., 2003. Masalih al-abdan Wa-al-Anfus. Markaz al-Malik Faysal lil-Buhuth wa-al-Dirasat al-Islamiyah, al-Riyad.

Al-Balkhi, A.Z., Misri, M., al-Hayyat, M., 2005. Masālih al-Abdān Wa-al-Anfus. al-Qāhirah: Ma'had al-Makhtūtāt al-'Arabīyah, 2005.

Balkhī, A.S., Sezgin, F., Süleymaniye Umumî Kütüphanesi, 1998. Masālih al-abdān wa-al-anfus. Frānkfūrt, Jumhūrīyat Almāniyā al-Ittiḥādīyah: Ma'had Tārīkh al-'Ulūm al-'Arabīyah wa-al-Islāmīyah fī itār Jāmi'at Frānkfūrt.

Al-Samarqandi, N.U., 1222. al-Asbab wa-al-'alamat. Reel 66. Arabic Medical Manuscript Collection, Louise M. Darling Biomedical Library, UCLA.

American Psychiatric Association, 2013. Diagnostic and Statistical Manual of Mental Disorders: DSM-5. American Psychiatric Assoc., Washington, DC.

Berrios, G.E., 1989. Obsessive–compulsive disorder: its conceptual history in France during the 19th century. Compr. Psychiatry 30.

Berrios, G.E., 1996. The History of Mental Symptoms: Descriptive Psychopathology since the Nineteenth Century. Cambridge University Press, Cambridge [England]; New York, NY, USA.

Bremmer, J.N., 2002. El concepto del alma en la antigua Grecia. Vol. 28. Siruela.

Cefalu, P., 2010. The doubting disease: religious scrupulosity and obsessive–compulsive disorder in historical context. J. Med. Humanit. 31, 111–125.

Deuraseh, N., 2006. Health and medicine in the Islamic tradition based on the book of medicine (Kitab Al-Tibb) of Sahih Al-Bukhari. J. Int. Soc. Hist. Islam. Med. (JISHIM) 5, 2–14.

Falagas, M., Zarkadoulia, E.A., Samonis, G., 2006. Arab science in the golden age (750–1258 C.E.) and today. J. Fed. Am. Soc. Exp. Biol. (FASEB) 20, 1581–1586.

Fraguas, D., Breathnach, C.S., 2009. Problems with retrospective studies of the presence of schizophrenia. Hist. Psychiatry 20, 61–71.

Friendly, M., 2008. The golden age of statistical graphics. Stat. Sci. 23, 502–535.

Goodman, W.K., 2014. Obsessive Compulsive and Related Disorders, an Issue of Psychiatric Clinics of North America. Elsevier Health Sciences, London.

Gorini, R., 2007. Bimaristans and mental health in two different areas of the Medieval Islamic world. J. Int. Soc. Hist. Islam. Med. (JISHIM) 16.

Graziani, J.S., 1980. Arabic Medicine in the Eleventh Century as Represented in the Works of Ibn Jazalah Hamdard Foundation, Karachi.

Haque, A., 2004. Psychology from Islamic perspective: contributions of early muslim scholars and challenges to contemporary muslim psychologists. J. Relig. Health 43, 357–377.

Heinrichs, R.W., 2003. Historical origins of schizophrenia: two early madmen and their illness. J. Hist. Behav. Sci. 39, 349–363.

Husayn, M.K. and al-'Uqbi, M.A., 1977. Tibb al-Razi: Dirasah Wa-tahlil Li-Kitab al-hawi. Dār al-Shurūq, al-Qāhirah ; Bayrūt.

Ḥusayn, M.K., 1970. al-Mu'jaz Fi tarikh al-tibb Wa-al-ṣaydalah 'inda al-Arab. Jami'at al-Duwal al-'Arabiyah, al-Munazzamah al-'Arabiyah lil-Tarbiyah wa-al-Thaqafah wa-al-'Ulum, al-Qahirah.

Jackson, S.W., 1972. Unusual mental states in medieval Europe. I. Medical syndromes of mental disorder: 400–1100 A.D. J. Hist. Med. Allied Sci 27 (3), 262–297.

Majeed, A., 2005. How Islam changed medicine: Arab physicians and scholars laid the basis for medical practice in Europe. BMJ: Br. Med. J. 331, 1486–1487.

Nagamia, H.F., 2010. A museum and library of Islamic medical history: a new perspective. J. Int. Soc. Hist. Islam. Med. (JISHIM) 8-9, 130.

Okasha, A., Saad, A., Khalil, A.H., el Dawla, A.S., Yehia, N., 1994. Phenomenology of obsessive–compulsive disorder: a transcultural study. Compr. Psychiatry 35.

Plante, T.G. (Ed.), 2013. Abnormal Psychology across the Ages. Vol. I: History and Conceptualization, Vol. II: Disorders and Treatments, Vol. III: Future Directions and Current Trends. Praeger/ABC-CLIO, Santa Barbara, CA.

Shanks, N.J., al-Kalai, D., 1984. Arabian medicine in the middle ages. J. R. Soc. Med. 77 (1), 60–65.

Simon, B., 1978. Mind and Madness in Ancient Greece: The Classical Roots of Modern Psychiatry. Cornell University Press, Ithaca, NY.

Taha, A.Z., 2006. al-Seha al-Nafseyah lada Abu Zayd al-Balkhi. Arab PsyNet. E-Journal. 12.

Tchamouroff, S.E., 2006. al-Razi and Islamic medicine in the 9th century. J. R. Soc. Med. 99.

Thornton, H., 1969. Socrates and the history of psychology. J. Hist. Behav. Sci. 5, 326–339.